ELSEVIER

Surface Science 322 (1995) 391–393

surface science

Author index

Alvarez, L.J., L.E. León, J. Fernández Sanz, M.J. Capitán and J.A. Odriozola, Micropore formation mechanisms in γ-Al_2O_3 322 (1995) 185
Anton, R., see Schmidt 322 (1995) 307
Aquino, A.A. and T.S. Jones, Strong mode-selective resonant vibrational excitation in chemisorbed molecules: an electron energy loss spectroscopy study of HCOO/GaAs(100) 322 (1995) 301

Bartke, T.U., see Franchy 322 (1995) 95
Bayer, P., see Müller 322 (1995) 21
Bedrossian, P.J., Nucleation and ordering of $MoSi_2$ on Si(100) 322 (1995) 73
Behm, R.J., see Meyer 322 (1995) L275
Blank, D.H.A., see Kersten 322 (1995) 1
Bloch, J., D.J. Bottomley, J.G. Mihaychuk, H.M. van Driel and R.S. Timsit, Magnesium surface segregation and its effect on the oxidation rate of the (111) surface of Al–1.45at%Mg 322 (1995) 168
Bol, C.W.J. and C.M. Friend, Selective oxygen addition with sulfur removal: the reactions of 2-propanethiol on Rh(111)-(2×1)-O 322 (1995) L271
Bolmont, D., see Rouyer 322 (1995) 34
Borstel, G., see Potthoff 322 (1995) 193
Bottomley, D.J., see Bloch 322 (1995) 168
Braun, J., see Potthoff 322 (1995) 193
Bu, H., see Sung 322 (1995) 116

Calaway, W.F., see Lill 322 (1995) 361
Canepa, M., P. Cantini, L. Mattera, E. Narducci, M. Salvietti and S. Terreni, An experimental investigation of the dissociation of H_2O on $O(n \times 1) - Ag(110)$: formation of OH-$(1 \times m)$ ordered layers 322 (1995) 271
Cantini, P., see Canepa 322 (1995) 271
Capitán, M.J., see Alvarez 322 (1995) 185
Conrad, E.H., see Hörnis 322 (1995) 256
Cox, D.F., see Gercher 322 (1995) 177

Davidson, E.R., see Mahmud 322 (1995) 342
Davies, P.R. and N. Shukla, The adsorption of pyridine at clean, oxidised and hydroxylated Cu(111) surfaces 322 (1995) 8
De Asha, A.M. and R.M. Nix, Oxidation of lanthanum overlayers on Cu(111) 322 (1995) 41
Dey, S.D., see Ray 322 (1995) 9
Diebold, U., see Dong 322 (1995) 221
Dillon, A.C., A.W. Ott, J.D. Way and S.M. George, Surface chemistry of Al_2O_3 deposition using $Al(CH_3)_3$ and H_2O in a binary reaction sequence 322 (1995) 23
Dong, Chengzhi, Lizhong Zhang, U. Diebold and T.E. Madey, A search for surface alloy formation in faceting induced by monolayer metal films: Pd/W(111) and Ni/W(111) 322 (1995) 221
Duś, R., W. Lisowski, E. Nowicka and Z. Wolfram, Oxygen interaction with palladium hydride and titanium hydride surfaces 322 (1995) 285

Fernández Sanz, J., see Alvarez 322 (1995) 185
Franchy, R. and T.U. Bartke, The adsorption of N_2 on Nb(110) at 80 and 20 K 322 (1995) 95
Friend, C.M., see Bol 322 (1995) L271

George, S.M., see Dillon 322 (1995) 23
Gercher, V.A. and D.F. Cox, Water adsorption on stoichiometric and defective SnO_2(110) surfaces 322 (1995) 177
Gewinner, G., see Rouyer 322 (1995) 34
Girardet, C., see Picaud 322 (1995) 381
Graupner, H., L. Hammer, K. Müller and D.M. Zehner, Composition and structure of the (100) and (110) surfaces of FeAl 322 (1995) 103

Hammer, L., see Graupner 322 (1995) 103
Hanf, M.C., see Rouyer 322 (1995) 34
Haunert, L., see Potthoff 322 (1995) 193
Heinz, K., see Müller 322 (1995) 21
Heinzmann, U., see Hilgers 322 (1995) 207
Heinzmann, U., see Potthoff 322 (1995) 193
Hilgers, G., M. Potthoff, N. Müller and U. Heinzmann, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. II. $(\sqrt{3} \times \sqrt{3})$R30°-Xe/Pd(111) and the 'dilute' phase of Xe/Pd(111) 322 (1995) 207
Hilgers, G., see Potthoff 322 (1995) 193
Ho, W., see Mieher 322 (1995) 151
Hoang, P.N.M., see Picaud 322 (1995) 381
Hörnis, H. and E.H. Conrad, Evidence for a deconstructed "even" flat phase on the Pd(110) + K 1×2 surface 322 (1995) 256
Hu, D.Q., see MacPherson 322 (1995) 58

Jankowski, Z., see Mróz 322 (1995) 133
Jones, T.S., see Aquino 322 (1995) 301

Karpuzov, D.S., see Sung 322 (1995) 116
Kersten, B.A.G., H.J.W. Zandvliet, D.H.A. Blank and A. van Silfhout, Step structure of vicinal Ge(001) surfaces 322 (1995) 1
Kim, C., see Sung 322 (1995) 116
Kinne, A., see Müller 322 (1995) 21
Krembel, C., see Rouyer 322 (1995) 34

Lee, K.-W., see Ramsier 322 (1995) 243
León, L.E., see Alvarez 322 (1995) 185
Leung, K.T., see MacPherson 322 (1995) 58
Li, B., C.-S. Zhang, V.P. Zhdanov and P.R. Norton, Adsorption kinetics accompanied by adsorbate diffusion into the solid 322 (1995) 373
Lill, Th., W.F. Calaway, Z. Ma and M.J. Pellin, Sputtering of Group-IIIa elements. Properties of the metal cluster formation mechanism 322 (1995) 361
Lisowski, W., see Duś 322 (1995) 285
Lu, W., see Smith 322 (1995) 293

Ma, Z., see Lill 322 (1995) 361
MacPherson, C.D., D.Q. Hu and K.T. Leung, Thermal surface chemistry of 1-, 3-, and 4-methyl-cyclohexene on Si(111)7 × 7: dehydrogenation mechanism and the effects of methyl substitution 322 (1995) 58
Madey, T.E., see Dong 322 (1995) 221
Mahmud, S. and E.R. Davidson, Theoretical study of the adsorption of carbon monoxide on a NaCl(100) surface 322 (1995) 342
Mamy, R., Growth of Co on Au(111): a photoemission study 322 (1995) 337
Mattera, L., see Canepa 322 (1995) 271
Meyer, J.A. and R.J. Behm, Place-exchange as a mechanism for adlayer island nucleation during epitaxial growth and resulting scaling behavior 322 (1995) L275
Mieher, W.D. and W. Ho, Thermally activated oxidation of NH_3 on Pt(111): intermediate species and reaction mechanisms 322 (1995) 151
Mihaychuk, J.G., see Bloch 322 (1995) 168
Mróz, S. and Z. Jankowski, Properties of ultrathin silver layers on the Ni(111) face 322 (1995) 133
Müller, K., see Graupner 322 (1995) 103
Müller, N., see Hilgers 322 (1995) 207
Müller, N., see Potthoff 322 (1995) 193
Müller, S., P. Bayer, A. Kinne, P. Schmailzl and K. Heinz, High precision LEED structure analysis of ultra-thin epitaxial fcc Fe films on Cu(100) 322 (1995) 21

Narducci, E., see Canepa 322 (1995) 271
Nix, R.M., see De Asha 322 (1995) 41
Norton, P.R., see Li 322 (1995) 373
Nowicka, E., see Duś 322 (1995) 285

Odriozola, J.A., see Alvarez 322 (1995) 185
Ott, A.W., see Dillon 322 (1995) 23

Pellin, M.J., see Lill 322 (1995) 361
Peruchetti, J.C., see Rouyer 322 (1995) 34
Picaud, S., P.N.M. Hoang and C. Girardet, Low frequency collective vibration modes of the CO_2 monolayer adsorbed on the NaCl(100) surface: interpretation of dispersion curves and mode polarizations 322 (1995) 381
Potthoff, M., G. Hilgers, N. Müller, U. Heinzmann, L. Haunert, J. Braun and G. Borstel, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. I. $(\sqrt{3} \times \sqrt{3})$R30°-Xe/Pt(111) 322 (1995) 193
Potthoff, M., see Hilgers 322 (1995) 207

Rabalais, J.W., see Sung 322 (1995) 116
Rajasekar, P., see Ray 322 (1995) 9
Ramsier, R.D., K.-W. Lee and J.T. Yates, Jr., CO adsorption on stepped Pd(112): studies by thermal and electron stimulated desorption 322 (1995) 243
Ray, N., P. Rajasekar and S.D. Dey, On the phenomenon of direct emission of small Si_n^+ $(n = 2, 3)$ clusters from an Ar^+-bombarded Si surface 322 (1995) 9
Rohrer, G.S., see Smith 322 (1995) 293
Rouyer, D., C. Krembel, M.C. Hanf, J.C. Peruchetti, D. Bolmont and G. Gewinner, Metastable film growth of Cr on Cu(001) 322 (1995) 34

Salvietti, M., see Canepa 322 (1995) 271
Schacht, M., see Swartzentruber 322 (1995) 83
Schmailzl, P., see Müller 322 (1995) 21
Schmidt, A.A. and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307
Shukla, N., see Davies 322 (1995) 8
Smith, R.L., W. Lu and G.S. Rohrer, The observation of oxygen disorder on the V_2O_5(001) surface using scanning tunneling microscopy 322 (1995) 293
Sung, M.M., C. Kim, H. Bu, D.S. Karpuzov and J.W. Rabalais, Composition and structure of the InP{100}-(1 × 1) and -(4 × 2) surfaces 322 (1995) 116
Swartzentruber, B.S. and M. Schacht, Kinetics of atomic-scale fluctuations of steps on Si(001) measured with variable-temperature STM 322 (1995) 83

Taylor, M.E., see Wang 322 (1995) 325
Terreni, S., see Canepa 322 (1995) 271
Timsit, R.S., see Bloch 322 (1995) 168
Tjandra, S. and F. Zaera, The surface chemistry of ethyl iodide on hydrogen-covered Ni(100) surfaces 322 (1995) 14

van Driel, H.M., see Bloch 322 (1995) 168
van Silfhout, A., see Kersten 322 (1995) 1

Wang, L., M.E. Taylor and M.E. Welland, Charging effects observed by low-temperature scanning tunnelling microscopy of gold islands 322 (1995) 325
Wang, X.W., First-principles pseudopotential study of structures of iron on copper (001) surface 322 (1995) 51

Way, J.D., see Dillon 322 (1995) 23
Welland, M.E., see Wang 322 (1995) 325
Wolfram, Z., see Duś 322 (1995) 285

Yates, Jr., J.T., see Ramsier 322 (1995) 243
Zaera, F., see Tjandra 322 (1995) 14
Zandvliet, H.J.W., see Kersten 322 (1995) 1
Zehner, D.M., see Graupner 322 (1995) 103
Zhang, C.-S., see Li 322 (1995) 373
Zhang, Lizhong, see Dong 322 (1995) 221
Zhdanov, V.P., see Li 322 (1995) 373

ELSEVIER

Surface Science 322 (1995) 394–399

surface science

Subject index

THEORETICAL METHODS, MODELS AND TECHNIQUES

Ab initio quantum chemical methods and calculations

S. Mahmud and E.R. Davidson, Theoretical study of the adsorption of carbon monoxide on a NaCl(100) surface 322 (1995) 342

Atom–solid interactions, scattering, diffraction

S. Picaud, P.N.M. Hoang and C. Girardet, Low frequency collective vibration modes of the CO_2 monolayer adsorbed on the NaCl(100) surface: interpretation of dispersion curves and mode polarizations 322 (1995) 381

Atomistic dynamics

A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

Computer simulations

J.A. Meyer and R.J. Behm, Place-exchange as a mechanism for adlayer island nucleation during epitaxial growth and resulting scaling behavior 322 (1995) L275

L.J. Alvarez, L.E. León, J. Fernández Sanz, M.J. Capitán and J.A. Odriozola, Micropore formation mechanisms in γ-Al_2O_3 322 (1995) 185

Electron–solid interactions, scattering, diffraction

M. Potthoff, G. Hilgers, N. Müller, U. Heinzmann, L. Haunert, J. Braun and G. Borstel, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. I. $(\sqrt{3} \times \sqrt{3})$R30°-Xe/Pt(111) 322 (1995) 193

G. Hilgers, M. Potthoff, N. Müller and U. Heinzmann, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. II. $(\sqrt{3} \times \sqrt{3})$R30°-Xe/Pd(111) and the 'dilute' phase of Xe/Pd(111) 322 (1995) 207

Equilibrium thermodynamics and statistical mechanics

B.A.G. Kersten, H.J.W. Zandvliet, D.H.A. Blank and A. van Silfhout, Step structure of vicinal Ge(001) surfaces 322 (1995) 1

B.S. Swartzentruber and M. Schacht, Kinetics of atomic-scale fluctuations of steps on Si(001) measured with variable-temperature STM 322 (1995) 83

Ion–solid interactions, scattering, channeling

M.M. Sung, C. Kim, H. Bu, D.S. Karpuzov and J.W. Rabalais, Composition and structure of the InP{100}-(1 × 1) and -(4 × 2) surfaces 322 (1995) 116

Models of surface kinetics

J.A. Meyer and R.J. Behm, Place-exchange as a mechanism for adlayer island nucleation during epitaxial growth and resulting scaling behavior 322 (1995) L275

B.S. Swartzentruber and M. Schacht, Kinetics of atomic-scale fluctuations of steps on Si(001) measured with variable-temperature STM 322 (1995) 83

J. Bloch, D.J. Bottomley, J.G. Mihaychuk, H.M. van Driel and R.S. Timsit, Magnesium surface segregation and its effect on the oxidation rate of the (111) surface of Al–1.45at%Mg 322 (1995) 168

A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

B. Li, C.-S. Zhang, V.P. Zhdanov and P.R. Norton, Adsorption kinetics accompanied by adsorbate diffusion into the solid 322 (1995) 373

Molecular dynamics

L.J. Alvarez, L.E. León, J. Fernández Sanz, M.J. Capitán and J.A. Odriozola, Micropore formation mechanisms in γ-Al_2O_3 322 (1995) 185

Semi-empirical models and model calculations

R.L. Smith, W. Lu and G.S. Rohrer, The observation of oxygen disorder on the V_2O_5(001) surface using scanning tunneling microscopy 322 (1995) 293

S. Picaud, P.N.M. Hoang and C. Girardet, Low frequency collective vibration modes of the CO_2 monolayer adsorbed on the NaCl(100) surface: interpretation of dispersion curves and mode polarizations 322 (1995) 381

EXPERIMENTAL SAMPLE PREPARATION AND CHARACTERIZATION METHODS

Atom–solid scattering and diffraction – elastic

M. Canepa, P. Cantini, L. Mattera, E. Narducci, M. Salvietti and S. Terreni, An experimental investigation of the dissociation of H_2O on $O(n \times 1) - Ag(110)$: formation of OH-$(1 \times m)$ ordered layers 322 (1995) 271

S. Picaud, P.N.M. Hoang and C. Girardet, Low frequency collective vibration modes of the CO_2 monolayer adsorbed on the NaCl(100) surface: interpretation of dispersion curves and mode polarizations 322 (1995) 381

Auger electron spectroscopy

H. Graupner, L. Hammer, K. Müller and D.M. Zehner, Composition and structure of the (100) and (110) surfaces of FeAl 322 (1995) 103

S. Mróz and Z. Jankowski, Properties of ultrathin silver layers on the Ni(111) face 322 (1995) 133

Chemical vapor deposition

A.C. Dillon, A.W. Ott, J.D. Way and S.M. George, Surface chemistry of Al_2O_3 deposition using $Al(CH_3)_3$ and H_2O in a binary reaction sequence 322 (1995) 230

Desorption induced by electronic transitions (DIET)

Angle resolved DIET (including electron stimulated desorption ion angular distribution (ESDIAD))

R.D. Ramsier, K.-W. Lee and J.T. Yates, Jr., CO adsorption on stepped Pd(112): studies by thermal and electron stimulated desorption 322 (1995) 243

Electron stimulated desorption (ESD)

R.D. Ramsier, K.-W. Lee and J.T. Yates, Jr., CO adsorption on stepped Pd(112): studies by thermal and electron stimulated desorption 322 (1995) 243

Electron energy loss spectroscopy

P.R. Davies and N. Shukla, The adsorption of pyridine at clean, oxidised and hydroxylated Cu(111) surfaces 322 (1995) 8

R. Franchy and T.U. Bartke, The adsorption of N_2 on Nb(110) at 80 and 20 K 322 (1995) 95

W.D. Mieher and W. Ho, Thermally activated oxidation of NH_3 on Pt(111): intermediate species and reaction mechanisms 322 (1995) 151

A.A. Aquino and T.S. Jones, Strong mode-selective resonant vibrational excitation in chemisorbed molecules: an electron energy loss spectroscopy study of HCOO/GaAs(100) 322 (1995) 301

Electron microscopy

A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

Electron–solid diffraction

Low energy electron diffraction (LEED)

S. Müller, P. Bayer, A. Kinne, P. Schmailzl and K. Heinz, High precision LEED structure analysis of ultra-thin epitaxial fcc Fe films on Cu(100) 322 (1995) 21

D. Rouyer, C. Krembel, M.C. Hanf, J.C. Peruchetti, D. Bolmont and G. Gewinner, Metastable film growth of Cr on Cu(001) 322 (1995) 34

A.M. De Asha and R.M. Nix, Oxidation of lanthanum overlayers on Cu(111) 322 (1995) 41

H. Graupner, L. Hammer, K. Müller and D.M. Zehner, Composition and structure of the (100) and (110) surfaces of FeAl 322 (1995) 103

S. Mróz and Z. Jankowski, Properties of ultrathin silver layers on the Ni(111) face 322 (1995) 133

M. Potthoff, G. Hilgers, N. Müller, U. Heinzmann, L. Haunert, J. Braun and G. Borstel, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. I. $(\sqrt{3} \times \sqrt{3})$R30°-Xe/Pt(111) 322 (1995) 193

G. Hilgers, M. Potthoff, N. Müller and U. Heinzmann, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. II. $(\sqrt{3} \times \sqrt{3})$R30°-Xe/Pd(111) and the 'dilute' phase of Xe/Pd(111) 322 (1995) 207

H. Hörnis and E.H. Conrad, Evidence for a deconstructed "even" flat phase on the Pd(110) + K 1×2 surface 322 (1995) 256

Photoelectron diffraction

D. Rouyer, C. Krembel, M.C. Hanf, J.C. Peruchetti, D. Bolmont and G. Gewinner, Metastable film growth of Cr on Cu(001) 322 (1995) 34

Electron–solid scattering and transmission – elastic

S. Mróz and Z. Jankowski, Properties of ultrathin silver layers on the Ni(111) face 322 (1995) 133

Ion scattering spectroscopy

Low energy ion scattering (LEIS)

M.M. Sung, C. Kim, H. Bu, D.S. Karpuzov and J.W. Rabalais, Composition and structure of the InP{100}-(1×1) and -(4×2) surfaces 322 (1995) 116

Chengzhi Dong, Lizhong Zhang, U. Diebold and T.E. Madey, A search for surface alloy formation in faceting induced by monolayer metal films: Pd/W(111) and Ni/W(111) 322 (1995) 221

Isotopic exchange / traces

S. Tjandra and F. Zaera, The surface chemistry of ethyl iodide on hydrogen-covered Ni(100) surfaces 322 (1995) 140

Molecule–solid reactions

P.R. Davies and N. Shukla, The adsorption of pyridine at clean, oxidised and hydroxylated Cu(111) surfaces 322 (1995) 8

A.C. Dillon, A.W. Ott, J.D. Way and S.M. George, Surface chemistry of Al_2O_3 deposition using $Al(CH_3)_3$ and H_2O in a binary reaction sequence 322 (1995) 230

Non-linear optical methods

Second harmonic generation

J. Bloch, D.J. Bottomley, J.G. Mihaychuk, H.M. van Driel and R.S. Timsit, Magnesium surface segregation and its effect on the oxidation rate of the (111) surface of Al–1.45at%Mg 322 (1995) 168

Photoelectron spectroscopy

D. Rouyer, C. Krembel, M.C. Hanf, J.C. Peruchetti, D. Bolmont and G. Gewinner, Metastable film growth of Cr on Cu(001) 322 (1995) 34

Angle resolved photoemission

M. Canepa, P. Cantini, L. Mattera, E. Narducci, M. Salvietti and S. Terreni, An experimental investigation of the dissociation of H_2O on $O(n \times 1) - Ag(110)$: formation of OH-$(1 \times m)$ ordered layers 322 (1995) 271

Visible and ultraviolet photoelectron spectroscopy

V.A. Gercher and D.F. Cox, Water adsorption on stoichiometric and defective $SnO_2(110)$ surfaces 322 (1995) 177

R. Mamy, Growth of Co on Au(111): a photoemission study 322 (1995) 337

X-ray photoelectron spectroscopy

P.R. Davies and N. Shukla, The adsorption of pyridine at clean, oxidised and hydroxylated Cu(111) surfaces 322 (1995) 8

A.M. De Asha and R.M. Nix, Oxidation of lanthanum overlayers on Cu(111) 322 (1995) 41

Photon absorption spectroscopy

Infrared absorption spectroscopy

A.C. Dillon, A.W. Ott, J.D. Way and S.M. George, Surface chemistry of Al_2O_3 deposition using $Al(CH_3)_3$ and H_2O in a binary reaction sequence 322 (1995) 230

Scanning tunneling microscopy

B.A.G. Kersten, H.J.W. Zandvliet, D.H.A. Blank and A. van Silfhout, Step structure of vicinal Ge(001) surfaces 322 (1995) 1

P.J. Bedrossian, Nucleation and ordering of $MoSi_2$ on Si(100) 322 (1995) 73

B.S. Swartzentruber and M. Schacht, Kinetics of atomic-scale fluctuations of steps on Si(001) measured with variable-temperature STM 322 (1995) 83

R.L. Smith, W. Lu and G.S. Rohrer, The observation of oxygen disorder on the $V_2O_5(001)$ surface using scanning tunneling microscopy 322 (1995) 293

L. Wang, M.E. Taylor and M.E. Welland, Charging effects observed by low-temperature scanning tunnelling microscopy of gold islands 322 (1995) 325

Scanning tunneling spectroscopies

L. Wang, M.E. Taylor and M.E. Welland, Charging effects observed by low-temperature scanning tunnelling microscopy of gold islands 322 (1995) 325

Secondary ion mass spectroscopy

N. Ray, P. Rajasekar and S.D. Dey, On the phenomenon of direct emission of small Si_n^+ $(n = 2, 3)$ clusters from an Ar^+-bombarded Si surface 322 (1995) 90

Th. Lill, W.F. Calaway, Z. Ma and M.J. Pellin, Sputtering of Group-IIIa elements. Properties of the metal cluster formation mechanism 322 (1995) 361

Solid phase epitaxy

S. Mróz and Z. Jankowski, Properties of ultrathin silver layers on the Ni(111) face 322 (1995) 133

Thermal desorption spectroscopy

C.D. MacPherson, D.Q. Hu and K.T. Leung, Thermal surface chemistry of 1-, 3-, and 4-methyl-cyclohexene on Si(111)7 $\times$ 7: dehydrogenation mechanism and the effects of methyl substitution 322 (1995) 58

S. Tjandra and F. Zaera, The surface chemistry of ethyl iodide on hydrogen-covered Ni(100) surfaces 322 (1995) 140

W.D. Mieher and W. Ho, Thermally activated oxidation of NH_3 on Pt(111): intermediate species and reaction mechanisms 322 (1995) 151

V.A. Gercher and D.F. Cox, Water adsorption on stoichiometric and defective $SnO_2(110)$ surfaces 322 (1995) 177

R.D. Ramsier, K.-W. Lee and J.T. Yates, Jr., CO adsorption on stepped Pd(112): studies by thermal and electron stimulated desorption 322 (1995) 243

X-ray scattering, diffraction, and reflection

P.J. Bedrossian, Nucleation and ordering of $MoSi_2$ on Si(100) 322 (1995) 73

PHENOMENA

Adsorption kinetics

S. Mróz and Z. Jankowski, Properties of ultrathin silver layers on the Ni(111) face 322 (1995) 133

A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

B. Li, C.-S. Zhang, V.P. Zhdanov and P.R. Norton, Adsorption kinetics accompanied by adsorbate diffusion into the solid 322 (1995) 373

Catalysis

P.R. Davies and N. Shukla, The adsorption of pyridine at clean, oxidised and hydroxylated Cu(111) surfaces 322 (1995) 8

C.D. MacPherson, D.Q. Hu and K.T. Leung, Thermal surface chemistry of 1-, 3-, and 4-methyl-cyclohexene on Si(111)7 × 7: dehydrogenation mechanism and the effects of methyl substitution 322 (1995) 58

S. Tjandra and F. Zaera, The surface chemistry of ethyl iodide on hydrogen-covered Ni(100) surfaces 322 (1995) 140

Chemisorption

P.R. Davies and N. Shukla, The adsorption of pyridine at clean, oxidised and hydroxylated Cu(111) surfaces 322 (1995) 8

X.W. Wang, First-principles pseudopotential study of structures of iron on copper (001) surface 322 (1995) 51

C.D. MacPherson, D.Q. Hu and K.T. Leung, Thermal surface chemistry of 1-, 3-, and 4-methyl-cyclohexene on Si(111)7 × 7: dehydrogenation mechanism and the effects of methyl substitution 322 (1995) 58

S. Tjandra and F. Zaera, The surface chemistry of ethyl iodide on hydrogen-covered Ni(100) surfaces 322 (1995) 140

M. Canepa, P. Cantini, L. Mattera, E. Narducci, M. Salvietti and S. Terreni, An experimental investigation of the dissociation of H_2O on $O(n \times 1) - Ag(110)$: formation of OH-$(1 \times m)$ ordered layers 322 (1995) 271

A.A. Aquino and T.S. Jones, Strong mode-selective resonant vibrational excitation in chemisorbed molecules: an electron energy loss spectroscopy study of HCOO/GaAs(100) 322 (1995) 301

Diffusion and migration

A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

B. Li, C.-S. Zhang, V.P. Zhdanov and P.R. Norton, Adsorption kinetics accompanied by adsorbate diffusion into the solid 322 (1995) 373

Epitaxy

J.A. Meyer and R.J. Behm, Place-exchange as a mechanism for adlayer island nucleation during epitaxial growth and resulting scaling behavior 322 (1995) L275

S. Müller, P. Bayer, A. Kinne, P. Schmailzl and K. Heinz, High precision LEED structure analysis of ultra-thin epitaxial fcc Fe films on Cu(100) 322 (1995) 21

A.M. De Asha and R.M. Nix, Oxidation of lanthanum overlayers on Cu(111) 322 (1995) 41

S. Mróz and Z. Jankowski, Properties of ultrathin silver layers on the Ni(111) face 322 (1995) 133

A.C. Dillon, A.W. Ott, J.D. Way and S.M. George, Surface chemistry of Al_2O_3 deposition using $Al(CH_3)_3$ and H_2O in a binary reaction sequence 322 (1995) 230

Faceting

Chengzhi Dong, Lizhong Zhang, U. Diebold and T.E. Madey, A search for surface alloy formation in faceting induced by monolayer metal films: Pd/W(111) and Ni/W(111) 322 (1995) 221

Growth

S. Müller, P. Bayer, A. Kinne, P. Schmailzl and K. Heinz, High precision LEED structure analysis of ultra-thin epitaxial fcc Fe films on Cu(100) 322 (1995) 21

A.M. De Asha and R.M. Nix, Oxidation of lanthanum overlayers on Cu(111) 322 (1995) 41

A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

R. Mamy, Growth of Co on Au(111): a photoemission study 322 (1995) 337

Interface states

R. Mamy, Growth of Co on Au(111): a photoemission study 322 (1995) 337

Ion bombardment

N. Ray, P. Rajasekar and S.D. Dey, On the phenomenon of direct emission of small Si_n^+ $(n = 2, 3)$ clusters from an Ar^+-bombarded Si surface 322 (1995) 90

Ion emission

N. Ray, P. Rajasekar and S.D. Dey, On the phenomenon of direct emission of small Si_n^+ $(n = 2, 3)$ clusters from an Ar^+-bombarded Si surface 322 (1995) 90

Nucleation

J.A. Meyer and R.J. Behm, Place-exchange as a mechanism for adlayer island nucleation during epitaxial growth and resulting scaling behavior 322 (1995) L275

P.J. Bedrossian, Nucleation and ordering of $MoSi_2$ on Si(100) 322 (1995) 73

A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

Oxidation

P.R. Davies and N. Shukla, The adsorption of pyridine at clean, oxidised and hydroxylated Cu(111) surfaces 322 (1995) 8

A.M. De Asha and R.M. Nix, Oxidation of lanthanum overlayers on Cu(111) 322 (1995) 41

Photoelectron emission

R. Mamy, Growth of Co on Au(111): a photoemission study 322 (1995) 337

Physical adsorption

A.A. Schmidt and R. Anton, ur of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

Sputtering

Th. Lill, W.F. Calaway, Z. Ma and M.J. Pellin, Sputtering of Group-IIIa elements. Properties of the metal cluster formation mechanism 322 (1995) 361

Surface chemical reaction

P.R. Davies and N. Shukla, The adsorption of pyridine at clean, oxidised and hydroxylated Cu(111) surfaces 322 (1995) 8

S. Tjandra and F. Zaera, The surface chemistry of ethyl iodide on hydrogen-covered Ni(100) surfaces 322 (1995) 140

V.A. Gercher and D.F. Cox, Water adsorption on stoichiometric and defective SnO_2(110) surfaces 322 (1995) 177

A.C. Dillon, A.W. Ott, J.D. Way and S.M. George, Surface chemistry of Al_2O_3 deposition using $Al(CH_3)_3$ and H_2O in a binary reaction sequence 322 (1995) 230

M. Canepa, P. Cantini, L. Mattera, E. Narducci, M. Salvietti and S. Terreni, An experimental investigation of the dissociation of H_2O on $O(n \times 1) - Ag(110)$: formation of OH-$(1 \times m)$ ordered layers 322 (1995) 271

R. Duś, W. Lisowski, E. Nowicka and Z. Wolfram, Oxygen interaction with palladium hydride and titanium hydride surfaces 322 (1995) 285

Surface diffusion

J.A. Meyer and R.J. Behm, Place-exchange as a mechanism for adlayer island nucleation during epitaxial growth and resulting scaling behavior 322 (1995) L275

A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

Surface relaxation and reconstruction

S. Müller, P. Bayer, A. Kinne, P. Schmailzl and K. Heinz, High precision LEED structure analysis of ultra-thin epitaxial fcc Fe films on Cu(100) 322 (1995) 21

M.M. Sung, C. Kim, H. Bu, D.S. Karpuzov and J.W. Rabalais, Composition and structure of the InP{100}-(1×1) and -(4×2) surfaces 322 (1995) 116

L.J. Alvarez, L.E. León, J. Fernández Sanz, M.J. Capitán and J.A. Odriozola, Micropore formation mechanisms in γ-Al_2O_3 322 (1995) 185

H. Hörnis and E.H. Conrad, Evidence for a deconstructed "even" flat phase on the Pd(110) + K 1×2 surface 322 (1995) 256

Surface roughening

L.J. Alvarez, L.E. León, J. Fernández Sanz, M.J. Capitán and J.A. Odriozola, Micropore formation mechanisms in γ-Al_2O_3 322 (1995) 185

Surface segregation

H. Graupner, L. Hammer, K. Müller and D.M. Zehner, Composition and structure of the (100) and (110) surfaces of FeAl 322 (1995) 103

J. Bloch, D.J. Bottomley, J.G. Mihaychuk, H.M. van Driel and R.S. Timsit, Magnesium surface segregation and its effect on the oxidation rate of the (111) surface of Al–1.45at%Mg 322 (1995) 168

Surface structure, morphology, roughness, and topography

B.A.G. Kersten, H.J.W. Zandvliet, D.H.A. Blank and A. van Silfhout, Step structure of vicinal Ge(001) surfaces 322 (1995) 1

S. Müller, P. Bayer, A. Kinne, P. Schmailzl and K. Heinz, High precision LEED structure analysis of ultra-thin epitaxial fcc Fe films on Cu(100) 322 (1995) 21

X.W. Wang, First-principles pseudopotential study of structures of iron on copper (001) surface 322 (1995) 51

B.S. Swartzentruber and M. Schacht, Kinetics of atomic-scale fluctuations of steps on Si(001) measured with variable-temperature STM 322 (1995) 83

H. Graupner, L. Hammer, K. Müller and D.M. Zehner, Composition and structure of the (100) and (110) surfaces of FeAl 322 (1995) 103

S. Mróz and Z. Jankowski, Properties of ultrathin silver layers on the Ni(111) face 322 (1995) 133

L.J. Alvarez, L.E. León, J. Fernández Sanz, M.J. Capitán and J.A. Odriozola, Micropore formation mechanisms in γ-Al_2O_3 322 (1995) 185

M. Potthoff, G. Hilgers, N. Müller, U. Heinzmann, L. Haunert, J. Braun and G. Borstel, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. I. $(\sqrt{3} \times \sqrt{3})$R30°-Xe/Pt(111) 322 (1995) 193

G. Hilgers, M. Potthoff, N. Müller and U. Heinzmann, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. II. $(\sqrt{3} \times \sqrt{3})$R30°-Xe/Pd(111) and the 'dilute' phase of Xe/Pd(111) 322 (1995) 207

R.L. Smith, W. Lu and G.S. Rohrer, The observation of oxygen disorder on the V_2O_5(001) surface using scanning tunneling microscopy 322 (1995) 293

Surface thermodynamics (including phase transitions)

P.J. Bedrossian, Nucleation and ordering of $MoSi_2$ on Si(100) 322 (1995) 73

B.S. Swartzentruber and M. Schacht, Kinetics of atomic-scale fluctuations of steps on Si(001) measured with variable-temperature STM 322 (1995) 83

H. Hörnis and E.H. Conrad, Evidence for a deconstructed "even" flat phase on the Pd(110) + K 1×2 surface 322 (1995) 256

Surface waves

Phonons

S. Picaud, P.N.M. Hoang and C. Girardet, Low frequency collective vibration modes of the CO_2 monolayer adsorbed on the NaCl(100) surface: interpretation of dispersion curves and mode polarizations 322 (1995) 381

Thermal desorption

C.W.J. Bol and C.M. Friend, Selective oxygen addition with sulfur removal: the reactions of 2-propanethiol on Rh(111)-(2 × 1)-O 322 (1995) L271

C.D. MacPherson, D.Q. Hu and K.T. Leung, Thermal surface chemistry of 1-, 3-, and 4-methyl-cyclohexene on Si(111)7 × 7: dehydrogenation mechanism and the effects of methyl substitution 322 (1995) 58

S. Mróz and Z. Jankowski, Properties of ultrathin silver layers on the Ni(111) face 322 (1995) 133

S. Tjandra and F. Zaera, The surface chemistry of ethyl iodide on hydrogen-covered Ni(100) surfaces 322 (1995) 140

Vibrations of adsorbed molecules

A.A. Aquino and T.S. Jones, Strong mode-selective resonant vibrational excitation in chemisorbed molecules: an electron energy loss spectroscopy study of HCOO/GaAs(100) 322 (1995) 301

S. Picaud, P.N.M. Hoang and C. Girardet, Low frequency collective vibration modes of the CO_2 monolayer adsorbed on the NaCl(100) surface: interpretation of dispersion curves and mode polarizations 322 (1995) 381

Wetting

P.J. Bedrossian, Nucleation and ordering of $MoSi_2$ on Si(100) 322 (1995) 73

ELSEVIER

Surface Science 322 (1995) 400–405

surface science

Materials index

ELEMENTAL AND CHEMICAL IDENTITY

Elements

Alkali metals

J. Bloch, D.J. Bottomley, J.G. Mihaychuk, H.M. van Driel and R.S. Timsit, Magnesium surface segregation and its effect on the oxidation rate of the (111) surface of Al–1.45at%Mg 322 (1995) 168

H. Hörnis and E.H. Conrad, Evidence for a deconstructed "even" flat phase on the Pd(110) + K 1 × 2 surface 322 (1995) 256

Aluminum

H. Graupner, L. Hammer, K. Müller and D.M. Zehner, Composition and structure of the (100) and (110) surfaces of FeAl 322 (1995) 103

J. Bloch, D.J. Bottomley, J.G. Mihaychuk, H.M. van Driel and R.S. Timsit, Magnesium surface segregation and its effect on the oxidation rate of the (111) surface of Al–1.45at%Mg 322 (1995) 168

Th. Lill, W.F. Calaway, Z. Ma and M.J. Pellin, Sputtering of Group-IIIa elements. Properties of the metal cluster formation mechanism 322 (1995) 361

Carbon

A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

Chromium

D. Rouyer, C. Krembel, M.C. Hanf, J.C. Peruchetti, D. Bolmont and G. Gewinner, Metastable film growth of Cr on Cu(001) 322 (1995) 34

Cobalt

R. Mamy, Growth of Co on Au(111): a photoemission study 322 (1995) 337

Copper

P.R. Davies and N. Shukla, The adsorption of pyridine at clean, oxidised and hydroxylated Cu(111) surfaces 322 (1995) 8

S. Müller, P. Bayer, A. Kinne, P. Schmailzl and K. Heinz, High precision LEED structure analysis of ultra-thin epitaxial fcc Fe films on Cu(100) 322 (1995) 21

D. Rouyer, C. Krembel, M.C. Hanf, J.C. Peruchetti, D. Bolmont and G. Gewinner, Metastable film growth of Cr on Cu(001) 322 (1995) 34

A.M. De Asha and R.M. Nix, Oxidation of lanthanum overlayers on Cu(111) 322 (1995) 41

X.W. Wang, First-principles pseudopotential study of structures of iron on copper (001) surface 322 (1995) 51

Gallium

Th. Lill, W.F. Calaway, Z. Ma and M.J. Pellin, Sputtering of Group-IIIa elements. Properties of the metal cluster formation mechanism 322 (1995) 361

Germanium

B.A.G. Kersten, H.J.W. Zandvliet, D.H.A. Blank and A. van Silfhout, Step structure of vicinal Ge(001) surfaces 322 (1995) 1

Gold

A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

L. Wang, M.E. Taylor and M.E. Welland, Charging effects observed by low-temperature scanning tunnelling microscopy of gold islands 322 (1995) 325

R. Mamy, Growth of Co on Au(111): a photoemission study 322 (1995) 337

Graphite

L. Wang, M.E. Taylor and M.E. Welland, Charging effects observed by low-temperature scanning tunnelling microscopy of gold islands 322 (1995) 325

Hydrogen

R. Duś, W. Lisowski, E. Nowicka and Z. Wolfram, Oxygen interaction with palladium hydride and titanium hydride surfaces 322 (1995) 285

B. Li, C.-S. Zhang, V.P. Zhdanov and P.R. Norton, Adsorption kinetics accompanied by adsorbate diffusion into the solid 322 (1995) 373

Indium

Th. Lill, W.F. Calaway, Z. Ma and M.J. Pellin, Sputtering of Group-IIIa elements. Properties of the metal cluster formation mechanism 322 (1995) 361

Iron

S. Müller, P. Bayer, A. Kinne, P. Schmailzl and K. Heinz, High precision LEED structure analysis of ultra-thin epitaxial fcc Fe films on Cu(100) 322 (1995) 21

X.W. Wang, First-principles pseudopotential study of structures of iron on copper (001) surface 322 (1995) 51

H. Graupner, L. Hammer, K. Müller and D.M. Zehner, Composition and structure of the (100) and (110) surfaces of FeAl 322 (1995) 103

Lanthanides

A.M. De Asha and R.M. Nix, Oxidation of lanthanum overlayers on Cu(111) 322 (1995) 41

Molybdenum

P.J. Bedrossian, Nucleation and ordering of $MoSi_2$ on Si(100) 322 (1995) 73

Nickel

S. Mróz and Z. Jankowski, Properties of ultrathin silver layers on the Ni(111) face 322 (1995) 133

Chengzhi Dong, Lizhong Zhang, U. Diebold and T.E. Madey, A search for surface alloy formation in faceting induced by monolayer metal films: Pd/W(111) and Ni/W(111) 322 (1995) 221

Niobium

R. Franchy and T.U. Bartke, The adsorption of N_2 on Nb(110) at 80 and 20 K 322 (1995) 95

Nitrogen

R. Franchy and T.U. Bartke, The adsorption of N_2 on Nb(110) at 80 and 20 K 322 (1995) 95

Noble gases

M. Potthoff, G. Hilgers, N. Müller, U. Heinzmann, L. Haunert, J. Braun and G. Borstel, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. I. $(\sqrt{3} \times \sqrt{3})$R30°-Xe/Pt(111) 322 (1995) 193

G. Hilgers, M. Potthoff, N. Müller and U. Heinzmann, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. II. $(\sqrt{3} \times \sqrt{3})$R30°-Xe/Pd(111) and the 'dilute' phase of Xe/Pd(111) 322 (1995) 207

Palladium

G. Hilgers, M. Potthoff, N. Müller and U. Heinzmann, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. II. $(\sqrt{3} \times \sqrt{3})$R30°-Xe/Pd(111) and the 'dilute' phase of Xe/Pd(111) 322 (1995) 207

Chengzhi Dong, Lizhong Zhang, U. Diebold and T.E. Madey, A search for surface alloy formation in faceting induced by monolayer metal films: Pd/W(111) and Ni/W(111) 322 (1995) 221

R.D. Ramsier, K.-W. Lee and J.T. Yates, Jr., CO adsorption on stepped Pd(112): studies by thermal and electron stimulated desorption 322 (1995) 243

H. Hörnis and E.H. Conrad, Evidence for a deconstructed "even" flat phase on the Pd(110) + K 1×2 surface 322 (1995) 256

R. Duś, W. Lisowski, E. Nowicka and Z. Wolfram, Oxygen interaction with palladium hydride and titanium hydride surfaces 322 (1995) 285

A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

Platinum

W.D. Mieher and W. Ho, Thermally activated oxidation of NH_3 on Pt(111): intermediate species and reaction mechanisms 322 (1995) 151

M. Potthoff, G. Hilgers, N. Müller, U. Heinzmann, L. Haunert, J. Braun and G. Borstel, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. I. $(\sqrt{3} \times \sqrt{3})$R30°-Xe/Pt(111) 322 (1995) 193

G. Hilgers, M. Potthoff, N. Müller and U. Heinzmann, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. II. $(\sqrt{3} \times \sqrt{3})$R30°-Xe/Pd(111) and the 'dilute' phase of Xe/Pd(111) 322 (1995) 207

Rhodium

C.W.J. Bol and C.M. Friend, Selective oxygen addition with sulfur removal: the reactions of 2-propanethiol on Rh(111)-(2×1)-O 322 (1995) L271

Silicon

C.D. MacPherson, D.Q. Hu and K.T. Leung, Thermal surface chemistry of 1-, 3-, and 4-methyl-cyclohexene on Si(111)7 $\times$ 7: dehydrogenation mechanism and the effects of methyl substitution 322 (1995) 58

P.J. Bedrossian, Nucleation and ordering of $MoSi_2$ on Si(100) 322 (1995) 73

B.S. Swartzentruber and M. Schacht, Kinetics of atomic-scale fluctuations of steps on Si(001) measured with variable-temperature STM 322 (1995) 83

N. Ray, P. Rajasekar and S.D. Dey, On the phenomenon of direct emission of small Si_n^+ ($n = 2, 3$) clusters from an Ar^+-bombarded Si surface 322 (1995) 90

Silver

S. Mróz and Z. Jankowski, Properties of ultrathin silver layers on the Ni(111) face 322 (1995) 133

M. Canepa, P. Cantini, L. Mattera, E. Narducci, M. Salvietti and S. Terreni, An experimental investigation of the dissociation of H_2O on O($n \times 1$) – Ag(110): formation of OH-($1 \times m$) ordered layers 322 (1995) 271

A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

Titanium

R. Duś, W. Lisowski, E. Nowicka and Z. Wolfram, Oxygen interaction with palladium hydride and titanium hydride surfaces 322 (1995) 285

Tungsten

Chengzhi Dong, Lizhong Zhang, U. Diebold and T.E. Madey, A search for surface alloy formation in faceting induced by monolayer metal films: Pd/W(111) and Ni/W(111) 322 (1995) 221

Zirconium

B. Li, C.-S. Zhang, V.P. Zhdanov and P.R. Norton, Adsorption kinetics accompanied by adsorbate diffusion into the solid 322 (1995) 373

Compounds (non-molecular solids)

Alkali halides

S. Mahmud and E.R. Davidson, Theoretical study of the adsorption of carbon monoxide on a NaCl(100) surface 322 (1995) 342

S. Picaud, P.N.M. Hoang and C. Girardet, Low frequency collective vibration modes of the CO_2 monolayer adsorbed on the NaCl(100) surface: interpretation of dispersion curves and mode polarizations 322 (1995) 381

Alloys

H. Graupner, L. Hammer, K. Müller and D.M. Zehner, Composition and structure of the (100) and (110) surfaces of FeAl 322 (1995) 103

J. Bloch, D.J. Bottomley, J.G. Mihaychuk, H.M. van Driel and R.S. Timsit, Magnesium surface segregation and its effect on the oxidation rate of the (111) surface of Al–1.45at%Mg 322 (1995) 168

Aluminum oxide

L.J. Alvarez, L.E. León, J. Fernández Sanz, M.J. Capitán and J.A. Odriozola, Micropore formation mechanisms in γ-Al_2O_3 322 (1995) 185

A.C. Dillon, A.W. Ott, J.D. Way and S.M. George, Surface chemistry of Al_2O_3 deposition using $Al(CH_3)_3$ and H_2O in a binary reaction sequence 322 (1995) 230

Gallium arsenide

A.A. Aquino and T.S. Jones, Strong mode-selective resonant vibrational excitation in chemisorbed molecules: an electron energy loss spectroscopy study of HCOO/GaAs(100) 322 (1995) 301

Hydrides

R. Duś, W. Lisowski, E. Nowicka and Z. Wolfram, Oxygen interaction with palladium hydride and titanium hydride surfaces 322 (1995) 285

Indium phosphide

M.M. Sung, C. Kim, H. Bu, D.S. Karpuzov and J.W. Rabalais, Composition and structure of the InP{100}-(1 × 1) and -(4 × 2) surfaces 322 (1995) 116

Inorganic compounds

C.W.J. Bol and C.M. Friend, Selective oxygen addition with sulfur removal: the reactions of 2-propanethiol on Rh(111)-(2 × 1)-O 322 (1995) L271

Lanthanum oxide

A.M. De Asha and R.M. Nix, Oxidation of lanthanum overlayers on Cu(111) 322 (1995) 41

Silicides

P.J. Bedrossian, Nucleation and ordering of $MoSi_2$ on Si(100) 322 (1995) 73

Tin oxides

V.A. Gercher and D.F. Cox, Water adsorption on stoichiometric and defective SnO_2(110) surfaces 322 (1995) 177

Vanadium oxide

R.L. Smith, W. Lu and G.S. Rohrer, The observation of oxygen disorder on the V_2O_5(001) surface using scanning tunneling microscopy 322 (1995) 293

Molecules

Alkanes

C.W.J. Bol and C.M. Friend, Selective oxygen addition with sulfur removal: the reactions of 2-propanethiol on Rh(111)-(2 × 1)-O 322 (1995) L271

Alkenes

C.D. MacPherson, D.Q. Hu and K.T. Leung, Thermal surface chemistry of 1-, 3-, and 4-methyl-cyclohexene on Si(111)-7 × 7: dehydrogenation mechanism and the effects of methyl substitution 322 (1995) 58

Ammonia

P.R. Davies and N. Shukla, The adsorption of pyridine at clean, oxidised and hydroxylated Cu(111) surfaces 322 (1995) 8

W.D. Mieher and W. Ho, Thermally activated oxidation of NH_3 on Pt(111): intermediate species and reaction mechanisms 322 (1995) 151

Aromatics

C.D. MacPherson, D.Q. Hu and K.T. Leung, Thermal surface chemistry of 1-, 3-, and 4-methyl-cyclohexene on Si(111)-7 × 7: dehydrogenation mechanism and the effects of methyl substitution 322 (1995) 58

Carbon dioxide

S. Picaud, P.N.M. Hoang and C. Girardet, Low frequency collective vibration modes of the CO_2 monolayer adsorbed on the NaCl(100) surface: interpretation of dispersion curves and mode polarizations 322 (1995) 381

Carbon monoxide

R.D. Ramsier, K.-W. Lee and J.T. Yates, Jr., CO adsorption on stepped Pd(112): studies by thermal and electron stimulated desorption 322 (1995) 243

S. Mahmud and E.R. Davidson, Theoretical study of the adsorption of carbon monoxide on a NaCl(100) surface 322 (1995) 342

Carboxylic acid

A.A. Aquino and T.S. Jones, Strong mode-selective resonant vibrational excitation in chemisorbed molecules: an electron energy loss spectroscopy study of HCOO/GaAs(100) 322 (1995) 301

Nitrogen

W.D. Mieher and W. Ho, Thermally activated oxidation of NH_3 on Pt(111): intermediate species and reaction mechanisms 322 (1995) 151

Nitrogen oxides

W.D. Mieher and W. Ho, Thermally activated oxidation of NH_3 on Pt(111): intermediate species and reaction mechanisms 322 (1995) 151

Oxygen

C.W.J. Bol and C.M. Friend, Selective oxygen addition with sulfur removal: the reactions of 2-propanethiol on Rh(111)-(2 × 1)-O 322 (1995) L271

W.D. Mieher and W. Ho, Thermally activated oxidation of NH_3 on Pt(111): intermediate species and reaction mechanisms 322 (1995) 151

M. Canepa, P. Cantini, L. Mattera, E. Narducci, M. Salvietti and S. Terreni, An experimental investigation of the dissociation of H_2O on O($n \times 1$) – Ag(110): formation of OH-($1 \times m$) ordered layers 322 (1995) 271

R. Duś, W. Lisowski, E. Nowicka and Z. Wolfram, Oxygen interaction with palladium hydride and titanium hydride surfaces 322 (1995) 285

Water

W.D. Mieher and W. Ho, Thermally activated oxidation of NH_3 on Pt(111): intermediate species and reaction mechanisms 322 (1995) 151

V.A. Gercher and D.F. Cox, Water adsorption on stoichiometric and defective SnO_2(110) surfaces 322 (1995) 177

M. Canepa, P. Cantini, L. Mattera, E. Narducci, M. Salvietti and S. Terreni, An experimental investigation of the dissociation of H_2O on O($n \times 1$) – Ag(110): formation of OH-($1 \times m$) ordered layers 322 (1995) 271

PHYSICAL STATE

Surfaces

Amorphous surfaces

C.D. MacPherson, D.Q. Hu and K.T. Leung, Thermal surface chemistry of 1-, 3-, and 4-methyl-cyclohexene on Si(111)-7 × 7: dehydrogenation mechanism and the effects of methyl substitution 322 (1995) 58

L.J. Alvarez, L.E. León, J. Fernández Sanz, M.J. Capitán and J.A. Odriozola, Micropore formation mechanisms in γ-Al_2O_3 322 (1995) 185

Liquid surfaces

Th. Lill, W.F. Calaway, Z. Ma and M.J. Pellin, Sputtering of Group-IIIa elements. Properties of the metal cluster formation mechanism 322 (1995) 361

Polycrystalline surfaces

N. Ray, P. Rajasekar and S.D. Dey, On the phenomenon of direct emission of small Si_n^+ ($n = 2, 3$) clusters from an Ar^+-bombarded Si surface 322 (1995) 90

Th. Lill, W.F. Calaway, Z. Ma and M.J. Pellin, Sputtering of Group-IIIa elements. Properties of the metal cluster formation mechanism 322 (1995) 361

Single crystal surfaces

R.L. Smith, W. Lu and G.S. Rohrer, The observation of oxygen disorder on the V_2O_5(001) surface using scanning tunneling microscopy 322 (1995) 293

S. Picaud, P.N.M. Hoang and C. Girardet, Low frequency collective vibration modes of the CO_2 monolayer adsorbed on the NaCl(100) surface: interpretation of dispersion curves and mode polarizations 322 (1995) 381

Low index single crystal surfaces

P.R. Davies and N. Shukla, The adsorption of pyridine at clean, oxidised and hydroxylated Cu(111) surfaces 322 (1995) 8

S. Müller, P. Bayer, A. Kinne, P. Schmailzl and K. Heinz, High precision LEED structure analysis of ultra-thin epitaxial fcc Fe films on Cu(100) 322 (1995) 21

C.D. MacPherson, D.Q. Hu and K.T. Leung, Thermal surface chemistry of 1-, 3-, and 4-methyl-cyclohexene on Si(111)-7 × 7: dehydrogenation mechanism and the effects of methyl substitution 322 (1995) 58

M.M. Sung, C. Kim, H. Bu, D.S. Karpuzov and J.W. Rabalais, Composition and structure of the InP{100}-(1 × 1) and -(4 × 2) surfaces 322 (1995) 116

S. Mróz and Z. Jankowski, Properties of ultrathin silver layers on the Ni(111) face 322 (1995) 133

V.A. Gercher and D.F. Cox, Water adsorption on stoichiometric and defective SnO_2(110) surfaces 322 (1995) 177
M. Potthoff, G. Hilgers, N. Müller, U. Heinzmann, L. Haunert, J. Braun and G. Borstel, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. I. ($\sqrt{3} \times \sqrt{3}$)R30°-Xe/Pt(111) 322 (1995) 193
G. Hilgers, M. Potthoff, N. Müller and U. Heinzmann, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. II. ($\sqrt{3} \times \sqrt{3}$)R30°-Xe/Pd(111) and the 'dilute' phase of Xe/Pd(111) 322 (1995) 207
Chengzhi Dong, Lizhong Zhang, U. Diebold and T.E. Madey, A search for surface alloy formation in faceting induced by monolayer metal films: Pd/W(111) and Ni/W(111) 322 (1995) 221
H. Hörnis and E.H. Conrad, Evidence for a deconstructed "even" flat phase on the Pd(110) + K 1×2 surface 322 (1995) 256
A.A. Aquino and T.S. Jones, Strong mode-selective resonant vibrational excitation in chemisorbed molecules: an electron energy loss spectroscopy study of HCOO/GaAs(100) 322 (1995) 301
B. Li, C.-S. Zhang, V.P. Zhdanov and P.R. Norton, Adsorption kinetics accompanied by adsorbate diffusion into the solid 322 (1995) 373

Stepped single crystal surfaces

R.D. Ramsier, K.-W. Lee and J.T. Yates, Jr., CO adsorption on stepped Pd(112): studies by thermal and electron stimulated desorption 322 (1995) 243

Vicinal single crystal surfaces

B.S. Swartzentruber and M. Schacht, Kinetics of atomic-scale fluctuations of steps on Si(001) measured with variable-temperature STM 322 (1995) 83

Surface defects

V.A. Gercher and D.F. Cox, Water adsorption on stoichiometric and defective SnO_2(110) surfaces 322 (1995) 177
L.J. Alvarez, L.E. León, J. Fernández Sanz, M.J. Capitán and J.A. Odriozola, Micropore formation mechanisms in γ-Al_2O_3 322 (1995) 185

Interfaces

Single crystal epitaxy

J.A. Meyer and R.J. Behm, Place-exchange as a mechanism for adlayer island nucleation during epitaxial growth and resulting scaling behavior 322 (1995) L275
S. Mróz and Z. Jankowski, Properties of ultrathin silver layers on the Ni(111) face 322 (1995) 133
R. Mamy, Growth of Co on Au(111): a photoemission study 322 (1995) 337

Solid–gas interfaces

C.D. MacPherson, D.Q. Hu and K.T. Leung, Thermal surface chemistry of 1-, 3-, and 4-methyl-cyclohexene on Si(111)-7×7: dehydrogenation mechanism and the effects of methyl substitution 322 (1995) 58
A.A. Aquino and T.S. Jones, Strong mode-selective resonant vibrational excitation in chemisorbed molecules: an electron energy loss spectroscopy study of HCOO/GaAs(100) 322 (1995) 301

Heterostructures

Quantum wells

R. Mamy, Growth of Co on Au(111): a photoemission study 322 (1995) 337

Adatoms

M. Potthoff, G. Hilgers, N. Müller, U. Heinzmann, L. Haunert, J. Braun and G. Borstel, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. I. ($\sqrt{3} \times \sqrt{3}$)R30°-Xe/Pt(111) 322 (1995) 193
G. Hilgers, M. Potthoff, N. Müller and U. Heinzmann, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. II. ($\sqrt{3} \times \sqrt{3}$)R30°-Xe/Pd(111) and the 'dilute' phase of Xe/Pd(111) 322 (1995) 207
A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307

Clusters

N. Ray, P. Rajasekar and S.D. Dey, On the phenomenon of direct emission of small Si_n^+ ($n = 2, 3$) clusters from an Ar^+-bombarded Si surface 322 (1995) 90
A.A. Schmidt and R. Anton, Anomalous growth behaviour of Pd–Au and Ag–Au alloy particles during vapour deposition on carbon substrates at elevated temperatures 322 (1995) 307
Th. Lill, W.F. Calaway, Z. Ma and M.J. Pellin, Sputtering of Group-IIIa elements. Properties of the metal cluster formation mechanism 322 (1995) 361

ELECTRICAL AND MAGNETIC BEHAVIOR

Surfaces and / or films

Insulating films

A.C. Dillon, A.W. Ott, J.D. Way and S.M. George, Surface chemistry of Al_2O_3 deposition using $Al(CH_3)_3$ and H_2O in a binary reaction sequence 322 (1995) 230

Insulating surfaces

L.J. Alvarez, L.E. León, J. Fernández Sanz, M.J. Capitán and J.A. Odriozola, Micropore formation mechanisms in γ-Al_2O_3 322 (1995) 185
S. Picaud, P.N.M. Hoang and C. Girardet, Low frequency collective vibration modes of the CO_2 monolayer adsorbed on the NaCl(100) surface: interpretation of dispersion curves and mode polarizations 322 (1995) 381

Magnetic surfaces

S. Müller, P. Bayer, A. Kinne, P. Schmailzl and K. Heinz, High precision LEED structure analysis of ultra-thin epitaxial fcc Fe films on Cu(100) 322 (1995) 21

Metallic films

Chengzhi Dong, Lizhong Zhang, U. Diebold and T.E. Madey, A search for surface alloy formation in faceting induced by monolayer metal films: Pd/W(111) and Ni/W(111) 322 (1995) 221

Metallic surfaces

M. Potthoff, G. Hilgers, N. Müller, U. Heinzmann, L. Haunert, J. Braun and G. Borstel, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. I. ($\sqrt{3} \times \sqrt{3}$)R30°-Xe/Pt(111) 322 (1995) 193

G. Hilgers, M. Potthoff, N. Müller and U. Heinzmann, Structure investigations of Xe-adsorbate layers by spin-polarized low-energy electron diffraction. II. ($\sqrt{3} \times \sqrt{3}$)R30°-Xe/Pd(111) and the 'dilute' phase of Xe/Pd(111) 322 (1995) 207

Semiconducting surfaces

V.A. Gercher and D.F. Cox, Water adsorption on stoichiometric and defective SnO_2(110) surfaces 322 (1995) 177

Heterostructures and thin film structures

Insulator–molecular film structures

S. Picaud, P.N.M. Hoang and C. Girardet, Low frequency collective vibration modes of the CO_2 monolayer adsorbed on the NaCl(100) surface: interpretation of dispersion curves and mode polarizations 322 (1995) 381

Metal–metal magnetic thin film structures

S. Müller, P. Bayer, A. Kinne, P. Schmailzl and K. Heinz, High precision LEED structure analysis of ultra-thin epitaxial fcc Fe films on Cu(100) 322 (1995) 21

Instructions for Authors Concerning the Use of Keywords for Indexing in Surface Science

Given below is a listing of keywords for the Subject and Materials Indexes used by Surface Science. The Subject index is divided into three classes: Theoretical Methods, Experimental Methods, and Phenomena. Please indicate below your abstract at least one keyword from as many of the three classes as appropriate to describe the contents of your manuscript. (You may also tick the appropriate box and include this list with your manuscript.) Occasionally it will not be possible to include a keyword from all three classes, e.g., a general theory manuscript will not exhibit a keyword from the Experimental Methods class. In such a case, omit the entry from the inapplicable class. Also, if appropriate, please select a keyword from one of the three classes of the Materials Index, i.e., Elemental and Chemical Identity, Physical State, and Electrical and Magnetic Behavior. You may use multiple keywords in the above mentioned six classes up to a maximum of eight in total. For example, many experimental papers will be characterized by more than one keyword in the Experimental Methods class of the Subject Index as well as by several keywords from the Materials Index.

The keywords will be used as labels for the use in electronic navigation tools. Thus, careful attention to giving a correct, useful description of your work will generate more thorough use of your paper once it is published.

Subject index

Theoretical methods, models and techniques

- ☐ Ab initio quantum chemical methods and calculations
- ☐ Atom–solid interactions, scattering, diffraction
- ☐ Atomistic dynamics
- ☐ Computer simulations
- ☐ Construction and use of effective interatomic interactions
- ☐ Density functional calculations
- ☐ Electron density, excitation spectra calculations
- ☐ Electron–solid interactions, scattering, diffraction
- ☐ Equilibrium thermodynamics and statistical mechanics
- ☐ Green's function methods
- ☐ Ion–solid interactions, scattering, channeling
- ☐ Ising models
- ☐ Jellium models
- ☐ Many body and quasi-particle theories
- ☐ Models of non-equilibrium phenomena
- ☐ Models of non-linear phenomena
- ☐ Models of surface chemical reactions
- ☐ Models of surface kinetics
- ☐ Molecular dynamics
- ☐ Non-equilibrium thermodynamics and statistical mechanics
- ☐ Semi-empirical models and model calculations

Experimental sample preparation and characterization methods

- ☐ Adsorption isotherms
- ☐ Appearance potential spectroscopy
- ☐ Atom–solid reactions
- ☐ Atom–solid scattering and diffraction – elastic
- ☐ Atom–solid scattering and diffraction – inelastic
- ☐ Atomic force microscopy
- ☐ Auger electron spectroscopy
- ☐ Chemical vapor deposition
- ☐ Desorption induced by electronic transitions (DIET)
  - ☐ *Angle resolved DIET* (including electron stimulated desorption ion angular distribution (ESDIAD))
  - ☐ *Electron stimulated desorption (ESD)*
  - ☐ *Photon stimulated desorption (PSD)*
  - ☐ *Surface photochemistry*
- ☐ Electrical transport measurements
- ☐ Electrochemical methods
- ☐ Electron emission measurements
  - ☐ *Exoelectron emission*
  - ☐ *Field emission*
  - ☐ *Photoemission (total yield)*
  - ☐ *Secondary electron emission*
  - ☐ *Thermally-stimulated emission*
- ☐ Electron energy loss spectroscopy
- ☐ Electron microscopy
  - ☐ *Ballistic electron emission microscopy (BEEM)*
  - ☐ *Low-energy electron microscopy (LEEM)*
  - ☐ *Reflection electron microscopy (REM)*
  - ☐ *Scanning electron microscopy (SEM)*
  - ☐ *Scanning transmission electron microscopy (STEM)*
- ☐ Electron–solid diffraction
  - ☐ *Auger electron diffraction*
  - ☐ *Low energy electron diffraction (LEED)*
  - ☐ *Photoelectron diffraction*
  - ☐ *Photoelectron holography*
  - ☐ *Reflection high-energy electron diffraction (RHEED)*
  - ☐ *Transmission high-energy electron diffraction*
- ☐ Electron–solid scattering and transmission – elastic
- ☐ Electron–solid scattering and transmission – inelastic
- ☐ Electron spin resonance
- ☐ Ellipsometry
- ☐ Field emission microscopy
- ☐ Field emission spectroscopy

- ☐ Field ion microscopy
- ☐ Inverse photoemission spectroscopy
- ☐ Ion etching
- ☐ Ion implantation
- ☐ Ion scattering spectroscopy
  - ☐ *High energy ion scattering (HEIS)*
  - ☐ *Low energy ion scattering (LEIS)*
  - ☐ *Medium energy ion scattering (MEIS)*
- ☐ Isotopic exchange/traces
- ☐ Laser methods
  - ☐ *Laser annealing*
  - ☐ *Laser induced thermal desorption (LITD)*
  - ☐ *Resonance enhanced multiphoton ionization mass spectroscopy (REMPI/MS)*
- ☐ Liquid phase epitaxy
- ☐ Magnetic measurements
- ☐ Molecular beam epitaxy
- ☐ Molecule–solid reactions
- ☐ Molecule–solid scattering and diffraction – elastic
- ☐ Molecule–solid scattering and diffraction – inelastic
- ☐ Mössbauer spectroscopy
- ☐ Neutron scattering
- ☐ Non-linear optical methods
  - ☐ *Second harmonic generation*
  - ☐ *Sum frequency generation*
- ☐ Nuclear magnetic resonance
- ☐ Nuclear reaction analysis
- ☐ Photoelectron spectroscopy
  - ☐ *Angle resolved photoemission*
  - ☐ *Soft X-ray photoelectron spectroscopy (using synchrotron radiation)*
  - ☐ *Visible and ultraviolet photoelectron spectroscopy*
  - ☐ *X-ray photoelectron spectroscopy*
- ☐ Photon absorption spectroscopy
  - ☐ *Extended X-ray absorption fine structure (EXAFS)*
  - ☐ *Infrared absorption spectroscopy*
  - ☐ *Near edge extended X-ray absorption fine structure (NEXAFS)*
  - ☐ *Photoacoustic spectroscopy*
  - ☐ *Visible/ultraviolet absorption spectroscopy*
  - ☐ *Surface extended X-ray absorption fine structure (SEXAFS)*
  - ☐ *X-ray absorption spectroscopy*
- ☐ Photon stimulated desorption (non-electronic)
- ☐ Plasma processing
- ☐ Positron spectroscopy
- ☐ Radioactive tracer methods
- ☐ Raman scattering spectroscopy
- ☐ Reflection spectroscopy
- ☐ Scanning tunneling microscopy
- ☐ Scanning tunneling spectroscopies
- ☐ Secondary ion mass spectroscopy
- ☐ Solid phase epitaxy
- ☐ Sputter deposition
- ☐ Surface photovoltage spectroscopy
- ☐ Thermal desorption spectroscopy
- ☐ Work function measurements
- ☐ X-ray emission
- ☐ X-ray scattering, diffraction, and reflection

Phenomena

- ☐ Adhesion
- ☐ Adsorption kinetics
- ☐ Atom emission
- ☐ Atom–solid interactions
- ☐ Auger ejection
- ☐ Catalysis
- ☐ Chemisorption
- ☐ Compound formation
- ☐ Conductivity
- ☐ Corrosion
- ☐ Crystallization
- ☐ Dielectric phenomena
- ☐ Diffusion and migration
- ☐ Electrical transport (conductivity, resistivity, mobility, etc.)
- ☐ Electron bombardment
- ☐ Electron emission
- ☐ Electron–solid interactions
- ☐ Electron stimulated desorption
- ☐ Energy dissipation
- ☐ Epitaxy
- ☐ Etching
- ☐ Evaporation and sublimation
- ☐ Faceting
- ☐ Field effect
- ☐ Field emission
- ☐ Field evaporation
- ☐ Field ionization
- ☐ Friction
- ☐ Growth
- ☐ Hall effect
- ☐ Interface states
- ☐ Ion bombardment
- ☐ Ion emission
- ☐ Ion implantation
- ☐ Ion–solid interactions
- ☐ Light scattering
- ☐ Lubrication
- ☐ Luminescence
  - ☐ *Atom/ion stimulated luminescence*
  - ☐ *Chemiluminescence*
  - ☐ *Electroluminescence*
  - ☐ *Photoluminescence*
- ☐ Magnetic phenomena (cyclotron resonance, phase transitions, etc.)
- ☐ Nucleation
- ☐ Oxidation
- ☐ Photochemistry
- ☐ Photoconductivity
- ☐ Photoelectron diffraction
- ☐ Photoelectron emission
- ☐ Photon emission
- ☐ Photon stimulated desorption
- ☐ Physical adsorption
- ☐ Piezoelectric effect
- ☐ Positron–solid interactions
- ☐ Quantum effects
- ☐ Radiation damage
- ☐ Second harmonic generation
- ☐ Secondary electron emission
- ☐ Self-assembly
- ☐ Sintering
- ☐ Sputtering
- ☐ Sticking
- ☐ Superconductivity
- ☐ Surface chemical reaction
- ☐ Surface diffusion
- ☐ Surface electrical transport (surface conductivity, surface recombination, etc.)
- ☐ Surface electronic phenomena (work function, surface potential, surface states, etc.)
- ☐ Surface energy
- ☐ Surface melting
- ☐ Surface photovoltage
- ☐ Surface relaxation and reconstruction
- ☐ Surface roughening
- ☐ Surface segregation
- ☐ Surface stress
- ☐ Surface structure, morphology, roughness, and topography
- ☐ Surface tension
- ☐ Surface thermodynamics (including phase transitions)
- ☐ Surface waves
  - ☐ *Acoustic waves*
  - ☐ *Capillary waves*
  - ☐ *Magnons*
  - ☐ *Phonons*
  - ☐ *Plasmons*
  - ☐ *Polaritons*
- ☐ Thermal desorption
- ☐ Thermionic emission
- ☐ Tribology
- ☐ Tunneling
- ☐ Vibrations of adsorbed molecules
- ☐ Wetting

Materials index

ELEMENTAL AND CHEMICAL IDENTITY
(Include each component of an interface or multilayer structure as a separate category. Add your own specific elemental or chemical label if a suitable entry is not on the list.)

Elements

- ☐ Alkali metals
- ☐ Alkaline earth metals
- ☐ Aluminum
- ☐ Antimony
- ☐ Arsenic
- ☐ Bismuth
- ☐ Boron
- ☐ Bromine
- ☐ Cadmium
- ☐ Carbon
- ☐ Cerium
- ☐ Chalcogens
- ☐ Chlorine
- ☐ Chromium
- ☐ Cobalt
- ☐ Copper
- ☐ Diamond
- ☐ Gallium
- ☐ Germanium
- ☐ Gold
- ☐ Graphite
- ☐ Hafnium
- ☐ Hydrogen
- ☐ Indium
- ☐ Iodine
- ☐ Iridium
- ☐ Iron
- ☐ Lanthanides
- ☐ Lead
- ☐ Manganese
- ☐ Mercury
- ☐ Molybdenum
- ☐ Nickel
- ☐ Niobium
- ☐ Nitrogen
- ☐ Noble gases
- ☐ Osmium
- ☐ Palladium
- ☐ Phosphorus
- ☐ Platinum
- ☐ Rhenium
- ☐ Rhodium
- ☐ Ruthenium
- ☐ Scandium
- ☐ Silicon
- ☐ Silver
- ☐ Tantalum
- ☐ Technetium
- ☐ Thallium
- ☐ Thorium
- ☐ Tin
- ☐ Titanium
- ☐ Tungsten
- ☐ Uranium
- ☐ Vanadium
- ☐ Ytterbium
- ☐ Yttrium
- ☐ Zinc
- ☐ Zirconium
- ☐ Other .....*

Compounds (non-molecular solids)

- ☐ Alkali halides
- ☐ Alloys
- ☐ Aluminum oxide
- ☐ Barium oxide
- ☐ Biological compounds
- ☐ Borides
- ☐ Boron nitride
- ☐ Cadmium selenide
- ☐ Cadmium sulphide
- ☐ Cadmium telluride
- ☐ Carbides
- ☐ Cobalt oxides
- ☐ Copper oxides
- ☐ Gallium antimonide
- ☐ Gallium arsenide
- ☐ Gallium nitride
- ☐ Gallium phosphide
- ☐ Gallium selenide
- ☐ Halides
- ☐ Hydrides
- ☐ Indium antimonide
- ☐ Indium arsenide
- ☐ Indium oxides
- ☐ Indium phosphide
- ☐ Inorganic compounds
- ☐ Iron oxide
- ☐ Lead telluride
- ☐ Magnesium oxides
- ☐ Mercury telluride
- ☐ Mica
- ☐ Molybdenum oxides
- ☐ Nickel carbide
- ☐ Nickel oxides
- ☐ Nickel sulphide
- ☐ Nitrides
- ☐ Silicides
- ☐ Silicon carbide
- ☐ Silicon–germanium
- ☐ Silicon nitride
- ☐ Silicon oxides
- ☐ Steel
- ☐ Sulphides
- ☐ Tin oxides
- ☐ Tin telluride
- ☐ Titanium carbide
- ☐ Titanium oxide
- ☐ Tungsten oxide
- ☐ Uranium oxide
- ☐ Vanadium oxide
- ☐ Zeolites
- ☐ Zinc oxide
- ☐ Zinc selenide
- ☐ Other .....*

Molecules

- ☐ Alcohols
- ☐ Aldehydes
- ☐ Alkanes
- ☐ Alkenes
- ☐ Alkynes
- ☐ Ammonia
- ☐ Aromatics
- ☐ Biological molecules – nucleic acids
- ☐ Biological molecules – proteins
- ☐ Biological molecules – other .....*
- ☐ Carbon dioxide
- ☐ Carbon monoxide
- ☐ Carboxylic acid
- ☐ Cyanogen
- ☐ Deuterium
- ☐ Esters
- ☐ Ethers
- ☐ Fullerenes
- ☐ Halogens
- ☐ Hydrogen
- ☐ Hydrogen cyanide
- ☐ Hydrogen sulphide
- ☐ Ketones
- ☐ Nitrogen
- ☐ Nitrogen oxides
- ☐ Oxygen
- ☐ Ozone
- ☐ Phosphine
- ☐ Silane
- ☐ Sulphur dioxide
- ☐ Sulphur hexafluoride
- ☐ Water
- ☐ Other .....

PHYSICAL STATE

Surfaces

- ☐ Amorphous surfaces
- ☐ Dendritic and/or fractile surfaces
- ☐ Glass surfaces
- ☐ Liquid surfaces
- ☐ Polycrystalline surfaces

- ☐ Single crystal surfaces
  - ☐ *Low index single crystal surfaces*
  - ☐ *Stepped single crystal surfaces*
  - ☐ *Vicinal single crystal surfaces*
- ☐ Surface defects
- ☐ Whiskers

Interfaces

- ☐ Crystalline–amorphous interfaces
- ☐ Crystalline–glass interfaces
- ☐ Grain boundaries
- ☐ Liquid–gas interfaces
- ☐ Single crystal epitaxy
- ☐ Solid–liquid interfaces
- ☐ Solid–gas interfaces

Heterostructures

- ☐ Heterojunctions
- ☐ Quantum wells
- ☐ Superlattices

Non-epitaxial thin film structures

- ☐ Amorphous thin films
- ☐ Ceramic thin films
- ☐ Glassy thin films
- ☐ Polycrystalline thin films

☐ **Adatoms**

☐ **Clusters**

Particulate composites

- ☐ Blacks
- ☐ Ceramics
- ☐ Powders

☐ **Coatings**

☐ **Porous solids**

ELECTRICAL AND MAGNETIC BEHAVIOR

Surfaces and/or films

- ☐ Insulating films
- ☐ Insulating surfaces
- ☐ Magnetic films
- ☐ Magnetic surfaces
- ☐ Metallic films
- ☐ Metallic surfaces
- ☐ Semiconducting films
- ☐ Semiconducting surfaces
- ☐ Superconducting films
- ☐ Superconducting surfaces

Interfaces

- ☐ Magnetic interfaces
- ☐ Metal–electrolyte interfaces
- ☐ Metal–insulator interfaces
- ☐ Metal–metal interfaces
- ☐ Metal–semiconductor interfaces
- ☐ Schottky barrier
- ☐ Semiconductor–electrolyte interfaces
- ☐ Semiconductor–insulator interfaces
- ☐ Semiconductor–semiconductor interfaces
- ☐ Semiconductor–superconductor interfaces
- ☐ Other interfaces .....*

Heterostructures and thin film structures

- ☐ Metal–metal magnetic heterostructures
- ☐ Metal–metal magnetic thin film structures
- ☐ Metal–metal nonmagnetic heterostructures
- ☐ Metal–metal nonmagnetic thin film structures
- ☐ Metal–oxide–semiconductor (MOS) structures
- ☐ Metal–semiconductor magnetic heterostructures
- ☐ Metal–semiconductor magnetic thin film structures
- ☐ Metal–semiconductor nonmagnetic heterostructures
- ☐ Metal–semiconductor nonmagnetic thin film structures
- ☐ Semiconductor–semiconductor heterostructures
- ☐ Semiconductor–semiconductor thin film structures
- ☐ Superconductor–semiconductor heterostructures
- ☐ Superconductor–semiconductor thin film structures
- ☐ Other heterostructures .....*
- ☐ Other thin film structures .....*

☐ **Contacts**

*Please, fill in necessary new Materials Index Keyword. If the new keyword is indicated on the manuscript, please, make clear to which subcategory it belongs.